

# **PUBLIC WATER SUPPLY SECTION**

## **☆ *TRANSIENT NON-COMMUNITY* ☆**

Drinking Water Regulations for

***TRANSIENT NON-COMMUNITY***

Public Water Supplies

November 24, 1999

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## PUBLIC WATER SUPPLY SECTION

### MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY

#### ★ SUMMARY ★

### Drinking Water Regulations for TRANSIENT NON-COMMUNITY Water Supplies

#### I. DEFINITION OF PUBLIC WATER SUPPLY

"Public water supply system" means a system for the provision of water for human consumption from any community well, water hauler for cisterns, water bottling plants, water dispenser, or other water supply that has at least 15 service connections or that regularly serves at least 25 persons daily for a period at least 60 days in a calendar year.

There are three types of public water supplies.

- A. **"Community water system"** means a public water supply system which serves at least 15 service connections used by year-round residents or that regularly serves at least 25 year-round residents.
- B. **"Transient non-community water system"** means a public water supply system that is not a community water system and that does not regularly serve at least 25 of the same persons for at least 6 months a year. This system primarily serves a transient population (cafes, bars, campgrounds, motels, etc.).
- C. **"Non-transient non-community water system"** means a public water supply system that is not a community water system and that regularly serves at least 25 of the same persons over six months per year. Examples are separate systems serving workers and schools.

Your particular water system has been classified as a **transient non-community** public water system. As owner, manager or operator of a community system, you have important responsibilities outlined in Montana law. You should become familiar with the four requirements listed in the side table.

Contaminants monitored
Sampling frequency
Public notification
Water system improvements

#### II. NATURE OF CONTAMINANTS AND MAXIMUM CONTAMINANT LEVELS

##### A. MICROBIOLOGICAL QUALITY - TOTAL COLIFORM RULE

Coliform bacteria, while not disease producers themselves, are often associated with pathogenic (disease-causing) organisms and are a good index of the degree of bacteriological safety of a water. Transient non-community water supplies must sample for coliform bacteria either on a monthly or quarterly basis, in accordance with this Total Coliform Rule summary. If you have any questions as to a specific system's monitoring requirements please call the Public Water Supply Section at 444-4400.

This regulation impacts all public water supplies in Montana. All Montana public water supplies began meeting the monitoring and reporting requirements of this rule in January, 1991. The federal rule became final in June, 1989. The applicable federal reference is 40 CFR Parts 141 and 142.

*It is the responsibility of the water system owner(s) to select a lab certified to perform microbiological analysis and have them send you sterile containers on a monthly or quarterly basis, depending on your system's current status. If the containers are not received, please notify your lab. The laboratory will send a copy of the bacteriological analysis report to the Public Water Supply Section. The water supplier is responsible for the cost of all analyses. Please choose a Laboratory certified to perform microbiological or chemical water analysis from the Certified Montana Laboratories chart included on the last page of this summary.*

## 1. ROUTINE MONITORING

Monitoring requirements are based on population served. (See table below). All public water supplies must monitor once per month at a minimum, except those transient non community systems which have been authorized in writing by the Department of Environmental Quality to monitor once per quarter. Monthly monitoring has changed for systems serving over 4,900 population. Refer to the table and notify the certified lab performing your analyses if your monitoring frequency has changed.

If your system serves over 4,900 population and uses only ground water (except ground water under the direct influence of surface water), routine samples must be collected at regular time intervals throughout the month. If your system serves 4,900 or fewer you may collect all of the samples on the same day, but they must be at different sample sites.

Transient Non-Community water suppliers must sample every month for at least 24 consecutive months of operation before they can be considered for quarterly monitoring. Sample results must be satisfactory and the department must review system condition and maintenance before quarterly monitoring is approved. Requests for quarterly monitoring must be submitted in writing to the Department of Environmental Quality, Public Water Supply Section, P.O. Box 200901, Helena, MT 59620-0901.

TOTAL COLIFORM SAMPLING REQUIREMENTS ACCORDING TO POPULATION SERVED			
Population Served	Minimum Number of Routine Samples Per Month	Population Served	Minimum Number of Routine Samples Per Month
25 to 1,000	1	17,201 to 21,500	20
1,001 to 2,500	2	21,501 to 25,000	25
2,501 to 3,300	3	25,001 to 33,000	30
3,301 to 4,100	4	33,001 to 41,000	40
4,101 to 4,900	5	41,001 to 50,000	50
4,901 to 5,800	6	50,001 to 59,000	60
5,801 to 6,700	7	59,001 to 70,000	70
6,701 to 7,600	8	70,001 to 83,000	80
7,601 to 8,500	9	83,001 to 96,000	90
8,501 to 12,900	10	96,001 to 130,000	100
12,901 to 17,200	15		

Systems with writtem approval for quarterly coliform bacteria sampling, the quarters of the calendar year are:

1<sup>st</sup> Quarter – January, February, March  
2<sup>nd</sup> Quarter – April, May, June

3<sup>rd</sup> Quarter – July, August, September  
4<sup>th</sup> Quarter – October, November, December

## 2. REPEAT SAMPLES

If a routine sample is total coliform-positive, a set of repeat samples must be submitted within 24 hours of being notified of the positive result (see side table). The laboratories should automatically send out repeat sample bottles for water suppliers to have available if they are needed. *It is the responsibility of the owner/operator* to have enough bottles on hand to send in repeat samples within 24 hours. At least one repeat sample shall be collected from the location of the coliform-positive sample. Where other sample locations are available, repeat samples shall also be collected from representative sites at opposite ends of the facility served by the system. If the department has required a site sample plan, repeat samples shall be taken at sites contained in the plan approved by the department. See section II.A.3 (page 3).

Monitoring and Repeat Sample Frequency After a Total Coliform - Positive Routine Sample		
Number of Routine Samples/Month	Number of Repeat Samples	Number Routine Samples Next Month
1/month or fewer	4	5/month
2/month	3	5/month
3/month	3	5/month
4/month	3	5/month
5/month or greater	3	Table VII

\* Vended water treatment units are required to sample monthly from each unit.

All repeat samples must be collected on the same day, except the State may allow a system with a single service connection to collect the required set of repeat samples over a four-day period. Unless otherwise authorized by the State, systems with a single service connection should collect all repeat samples the same day, even if this means they are all collected from the same tap in rapid succession.

When coliform bacteria are also found in a repeat sample, a possible source of contamination exists and steps must be taken to correct the problem. System disinfection may be necessary and additional samples are required to determine if the contamination has been eliminated. For advice concerning possible sources of contamination or disinfection procedures, please contact your county sanitarian or the Public Water Section at 444-4400.

## FAILURE TO COLLECT REPEATS

Failure to submit the required number of repeat samples for the Public Water Supply (PWS) is a violation of the coliform MCL and subjects the system to the required public notification. Details of public notification requirements and federally mandated language which must be issued is outlined in section III.B (page 8).

## ROUTINE SAMPLES REQUIRED IN THE NEXT MONTH FOLLOWING TOTAL COLIFORM DETECTION

If a system which collects fewer than five routine samples a month/quarter detects total coliforms in any routine or repeat sample, it must collect a set of five routine samples the next month the system provides water to the public. **THIS APPLIES REGARDLESS OF WHETHER A SYSTEM IS ROUTINELY SAMPLING ON A MONTHLY OR QUARTERLY BASIS.** These samples are required *in addition to* any repeat samples being collected for a previous total coliform-positive sample.

## LABORATORY ANALYSIS

Total coliform analyses are to be conducted using the 10-tube MTF Technique, the MF Technique, the P-A Coliform Test or the Minimal Media ONPG-MUG Test (Autoanalysis Colilert System). The system may also use the 5-tube MTF Technique (20-ml sample portions) or a single culture bottle containing the MTF medium, as long as a 100-ml water sample is used in the analysis.

If any routine or repeat sample is total coliform-positive, that total coliform-positive culture must be analyzed to determine if fecal coliforms are present. E. coli may be tested for instead of fecal coliforms. If fecal coliforms or E. coli are detected, the system must notify the State before the end of the same business day, or, if detected after the close of business for the State, by the end of the next business day.

On a case-by-case basis, a water system can forgo fecal coliform or E. coli testing on total coliform-positive samples, if the system treats every total coliform-positive sample as if it contained fecal coliforms, i.e., the system complies with all sections of the rule which apply when a sample is fecal coliform-positive.

If the laboratory finds that heterotrophic bacteria interfered with any coliform analysis, the system must collect another sample within 24 hours of being notified of the result. The sample must be collected from the same location as the original sample and be analyzed for total coliforms.

## 3. SELECTION OF SAMPLE SITES

Plumbing should be inspected to ensure there are no cross-connections with non-potable water sources.

The sampling tap should be free of any aerators, strainers, hoses or water treatment devices.

Leaking taps that allow water to flow over the outside of the tap should be avoided.

Outside taps, swivel taps and combined hot and cold water faucets should be avoided.

Routine sample sites shall be accessible daily and throughout the entire year.

No routine sample site may be the last service connection from any dead end of the water distribution system.

Transient non-community water suppliers are required to alternate coliform bacteria sample locations if more than one service connection is served by the system. Samples should be taken at locations representative of the water served

throughout the

distribution system. If your system has more than one service connection, your sample sites must be shown

on a sketch of your system

and submitted to the Department of Environmental Quality, Community Services Bureau, Public Water Supply Section, P.O. Box 200901, Helena, MT 59620-0901 for review and approval.

For systems with multiple service connections, repeat sample sites shall be available within five service connections both upstream and downstream of each routine sample site. Small systems may, if necessary, collect repeat samples at one or more of the other routine sample sites if they are located within five service connections of the original coliform-positive routine sample site

MINIMUM ROUTINE SAMPLE SITES	
SERVICE CONNECTIONS	SAMPLE SITES
1	1
2 to 10	2
11 to 100	3
101 to 500	4
> 500	5

#### 4. MAXIMUM CONTAMINANT LEVELS (MCLs):

If more than one sample per month/quarter is total coliform-positive, a violation of the MCL occurs.

Routine and repeat samples are included in this calculation. Special samples, such as those taken prior to opening of a seasonal establishment will not be used for MCL determinations.

MCL - failure to submit repeats for a coliform positive routine sample creates a non-acute MCL violation for total coliforms.

If any repeat sample is fecal coliform- or E. coli-positive, or if a fecal coliform- or E. coli-positive original sample is followed by a total coliform-positive repeat sample, an acute violation of the MCL for total coliforms occurs.

#### 5. BACTERIOLOGICAL PUBLIC NOTICE REQUIREMENTS

Violations of the MCL when total coliforms, fecal coliforms or E. coli are present requires that specific wording be used for public notice. Immediate notification of area radio or television stations is required for acute violations unless alternative methods are approved by the PWS Section.

Public notice is also mandated if a system fails to monitor as required. The federal rules also detail how, when, and at what frequency notice must be provided. Different violations have different requirements, based on their potential impact on public health. Contact the State Department of Environmental Quality for assistance when public notice is required. Public Notification requirements are outlined in the enclosed, "EPA Public Notification for Public Water Systems." See Section III. B, page 12.

#### 6. HOW TO COLLECT A COLIFORM BACTERIA SAMPLE

- a. Select a sample tap from which to take the sample. Always sample from the cold water tap. If at all possible select a faucet that is:  
not leaking  
non-swivel, non-mixing faucet  
do not sample from drinking fountains or outside hydrants  
avoid sample points located after water softeners, carbon filters, or cisterns serving single homes
- b. Remove any faucet attachments (aeration screens, hoses, etc)
- c. Open tap fully; let water run to waste for 2 or 3 minutes (sufficient time to allow flushing of the service line).  
  
if you must use a mixing faucet, run the hot water tap for 2 minutes and then run the cold water tap for 2-3 minutes (always collect cold water sample).
- d. Reduce the flow (to about the diameter of a pencil), and fill the bottle. Note: when flow pressure is reduced if the water dribbles to the faucet edge and contacts the metal of the faucet before entering the bottle, this may cause the sample to be contaminated with bacteria from the faucet. Adjust the flow or locate a different sampling tap.
- e. Collect the sample.  
  
Do not open sample bottle until ready to fill.  
Grasping the bottle in one hand, remove the lid with the other and proceed to fill the bottle. Do not set the lid down on a table or turn upwards during collection. Do not contaminate the bottle by touching the inner surface of the bottle with your finger or touching it to the faucet.  
Do not rinse the bottle before filling (white powder inside is sodium thiosulfate which neutralizes any chlorine in the water).  
Fill the bottle to the top of the label, or base of the neck. Leave an airspace which allows mixing by shaking at the lab.
- f. Transport water sample to lab with shortest transit time possible. Try to maintain sample at normal water temperature.  
  
samples must be received in the lab within 30 hours for coliform analysis  
samples for heterotrophic bacteria (HPC) analysis should be received in the lab within 8 hours (without refrigeration) and within 24 hours if packed on ice during transit.

## **B. NITRATE AND NITRITE MONITORING AND MAXIMUM CONTAMINANT LEVELS**

### **1. NITRATES**

This section summarizes revised monitoring requirements for nitrate as promulgated under the U.S. Environmental Protection Agency's (EPA) Phase II Rule. The revised monitoring requirements for nitrate took effect January 1993.

#### **Systems Affected**

All transient non-community water systems must comply with the monitoring requirements for nitrate.

#### **Sampling Points**

Sampling must be conducted at each entry point to the distribution system. Sampling points must be representative of the well or source water *after treatment*.

#### **Initial Base Sampling**

All water systems began complying with the revised sampling requirements for nitrate on January 1, 1993. The frequency of initial sampling is as follows:

*TWS:* All systems, regardless of the water source, must sample annually.

#### **Grandfathering**

Not allowed.

#### **Confirmation Samples**

Systems must take a confirmation sample within 24 hours after the results of the initial sample are found to be greater than or equal to (  $\geq$  ) the MCL. Systems unable to meet the 24-hour confirmation sampling requirement must issue a public notice to consumers of the system and must then analyze a confirmation sample within two weeks of receiving the results of the initial sample.

#### **Compliance Determination**

If any sample exceeds the MCL for nitrate, systems must take a confirmation sample. The compliance determination is based on the average of the results of the initial and confirmation samples.

#### **Public Notice**

\* See enclosed summary of "EPA Public Notification for Public Water Systems," for more detail.

#### **Waivers**

Not allowed

## 2. NITRITES

This section summarizes the monitoring requirements for nitrite as promulgated under the U.S. Environmental Protection Agency's (EPA) Phase II Rule. Monitoring for nitrite began in January 1993.

### Systems Affected

All transient non-community water systems must comply with the monitoring requirements for nitrite.

### Sampling Points

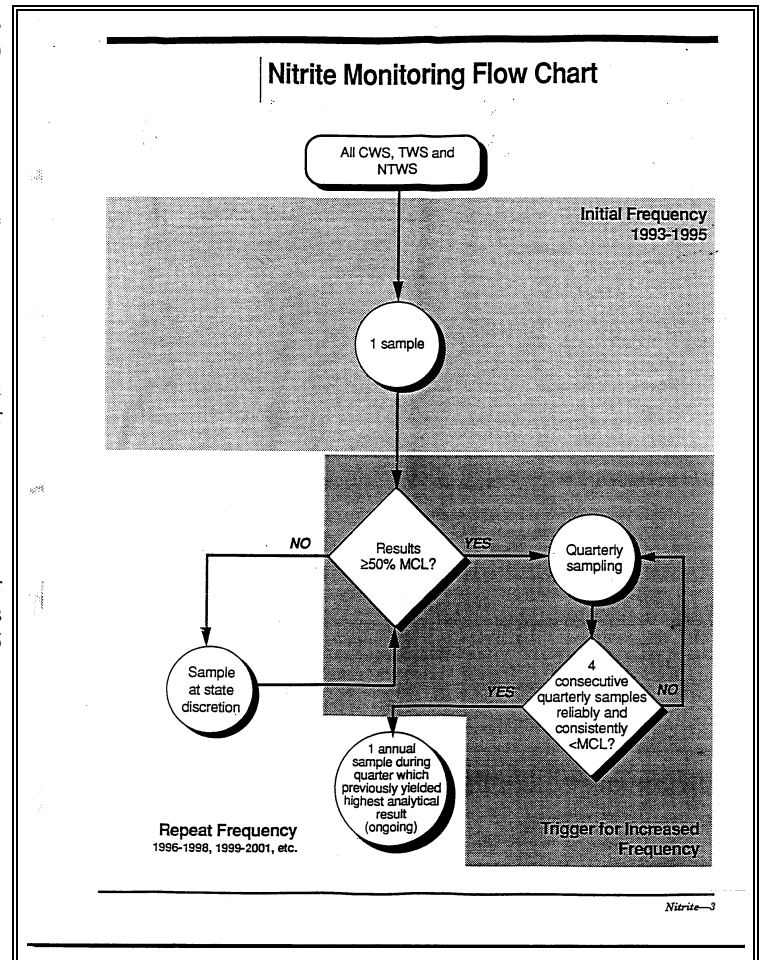
Sampling must be conducted at each entry point to the distribution system. Sampling points must be representative of the well or source water *after treatment*.

### Initial Base Sampling

All systems began complying with revised sampling requirements for nitrite between 1993 and 1995. Each system must take one sample, unless a combined nitrate plus nitrite test is done and the result is less than (<) 0.5 mg/l.

### Grandfathering

Not allowed



### MCL's and Trigger for Increased Sampling

Regulated Contaminant
<b>MCL</b> 1 mg/L (as Nitrogen)
<b>Trigger</b> 0.5 mg/L (as Nitrogen)

The trigger for increased / decreased sampling for nitrite is 50 percent of the MCL (i.e., 0.5 mg/L). See side table for MCL and trigger level.)

### Repeat Base Sampling (< 50% MCL)

If the results of initial sampling are less than (<) 50 percent of the MCL, repeat sampling requirements (if any) will be at state discretion.



### **Increased Sampling ( $\geq$ 50% MCL or $\geq$ MCL )**

Systems collecting any sample(s) greater than or equal to (  $\geq$  ) 50 percent of the MCL must sample quarterly for at least one year.

States may decrease the sampling frequency to annual provided the results of four consecutive quarterly samples are "reliably and consistently" below the MCL.

Systems sampling annually must take subsequent samples during the quarter which previously yielded the highest analytical result.

### **Confirmation Samples**

Systems must take a confirmation sample within 24 hours after the results of the initial sample are found to be greater than or equal to (  $\geq$  ) the MCL. Systems unable to meet the 24-hour confirmation sampling requirement must issue a public notice to consumers of the system and must then analyze a confirmation sample within two weeks of receiving the results of the initial sample.

### **Compliance Determination**

If any sample exceeds the MCL for nitrite, systems must take a confirmation sample. The compliance determination is based on the average of the results of the initial and confirmation samples.

### **Public Notice**

\* See enclosed summary of "EPA Public Notification for Public Water Systems," for more detail.

### **Waivers**

Not allowed

### III. OTHER REQUIREMENTS

#### A. SURFACE WATER TREATMENT RULE (SWTR)

This rule will affect only those public water supplies that use surface water, or those that have groundwater supplies that are directly influenced by surface water. If you use a surface water supply and we have not included a copy of the SWTR summary, please notify the Public Water Supply Section for a copy. **However, if you have a groundwater supply that may be directly influenced by surface water, you should request a copy of the Surface Water Treatment Rule summary by contacting the Public Water Supply Section.** The Public Water Supply Section will eventually assess all groundwater sources for surface water influence.

#### B. EPA PUBLIC NOTIFICATION FOR PUBLIC WATER SYSTEMS

##### OVERVIEW

With the enactment of the Safe Drinking Water Act (SDWA) in 1974, Congress required that public drinking water systems notify their customers when drinking water standards are violated.

On June 19, 1986, Congress amended the Act and, among other changes, directed the Environmental Protection Agency (EPA) to revise the public notification requirements. Congress also reaffirmed its position that public notification is an important responsibility of public water systems.



In response to this Congressional mandate, EPA, on October 28, 1987, published its revised, general public notification requirements, changing the way public drinking water systems are to issue notice. These requirements were effective April 28, 1989, and can be found in 40 Code of Federal Regulation (CFR) 141.32. Each state has adopted or will adopt requirements no less stringent than EPA's regulations. Contact your state primacy agency for specific requirements that apply in your state, or contact the Safe Drinking Water Hotline.

##### Safe Drinking Water Hotline

Hours: 8:30 a.m. - 4:30 p.m. EST  
Monday - Friday



**1-800-426-4791**

#### Purpose of Public Notification

The primary purpose of public notification is to inform consumers of any existing or potential adverse health effects related to their drinking water, and steps they can take to minimize the impact. Public notification also provides consumers with information that will encourage them to support the expenditures it will take to provide safe water. *More detailed information concerning the revised public notification requirements can be found in the handbook, "General Public Notification for Public Water Systems: (Publication Number EPA 570/9-88-002, September 1989). Copies may be purchased from the National Technical Information Service (NTIS), U.S. Dept. of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161. Phone: 1-800-336-4700 toll free to order.*

#### WHO MUST GIVE THE PUBLIC NOTICE

All public water systems (PWSs) must notify the public when the system violates a national primary drinking water regulation or receives and operates under a variance and/or an exemption. Contact primacy agent to determine your PWS type.

The form and timing of the public notification depends on the type of violation or action and whether the public water system is a community water system (CWS) or non-community water system (NCWS). The type of violation determines the timing of the notice.

In general, CWSs must provide in a newspaper and, for acute violations, provide notice to the local radio or TV stations. CWS must also give notice of Tier 1 violations to new billing units. NCWS will, in general, give the notice by continuous posting. All public water systems must use mandatory health effects language (see 40 CFR 141.32(e) for certain types of violations. Refer to the table on the following page, "Summary of Public Notice Requirements." \*

***A copy of any public notice given to comply with the above mentioned requirements must be submitted to the Public Water Supply Section within 10 days of its issuance.***

## LEVELS OF VIOLATIONS / ACTIONS

Tier 1 violations are the more serious and require substantial efforts at public notification. Tier 1 violations include:

### **Tier 1 Violations**

Failure to comply with a Maximum Contaminant Level (MCL)

Failure to comply with a treatment technique requirement established in lieu of an MCL.

Failure to comply with a schedule prescribed under a variance or exemption.

Tier 2 violations are less serious and have simpler public notification requirements. Tier 2 violations include:

### **Tier 2 Violations**

Failure to comply with monitoring requirements

Failure to comply with specified testing procedures

Operating under a variance or an exemption

# EPA SUMMARY OF PUBLIC NOTICE REQUIREMENTS \*

Violation Category Type	Mandatory <sup>6</sup> Health Effects Information Required (All PWSs)	Notice to New Billing Units (CWSs Only)	Type of PWSs	Time Frame Within Which Notice Must be Given (Shaded Area indicates time frame for initial notice and is followed by the frequency of repeat notice until the violation is resolved)						
				Violation	72 Hours	7 days	14 days	45 days	3 months	Annual
TIER 1  1. MC L  2. Treatment Technique  3. Variance or Exemption Schedule Violation	Yes	Yes	Community	Acute Violations: <sup>7</sup>						
				TV and Radio		No Repeat				
				Newspaper <sup>1</sup>				No Repeat		
				Mail or Hand Delivery <sup>2</sup>					Quarterly Repeat	
				Non-Acute Violations:						
				Newspaper <sup>1</sup>						
				Mail or Hand Delivery <sup>2</sup>		Quarterly Repeat				
			Non-Community <sup>3</sup>	Option 1:						
				Acute/Non-Acute Violations						
				Notice as for Community Water Systems or						
				Option 2:						
				Acute Violations						
				Posting or Hand Delivery		Continuous/Quarter Repeat <sup>5</sup>				
				Non-Acute Violations						
Posting or Hand Delivery		Continuous/Quarterly Repeat <sup>5</sup>								
TIER 2  1. Monitoring <sup>4</sup>  2. Testing Procedure  3. Variance or Exemption Issued	No	No	Community							
				Newspaper <sup>1</sup>						Quarterly Repeat by Mail or Hand Delivery
			Non-Community <sup>3</sup>	Option 1:						
				Notice as for Community Water Systems or						
				Option 2:						
Posting or Hand Delivery						Continuous/Quarterly Repeat <sup>5</sup>				

## \* Footnotes

<sup>1</sup> If no newspaper of general circulation is available, an alternate procedure providing for notice by posting or hand delivery within 72 hours for Tier 1 acute violations, 14 days for Tier 1 non-acute violations, and 3 months for Tier 2 violations should be followed.

<sup>2</sup> May be waived by the state in writing if the violation has been corrected within the 45-day period.

<sup>3</sup> Includes both transient non-community public water systems and non-transient non-community public water systems.

<sup>4</sup> Less frequent (but no less than annual) notice can be allowed if state regulations providing for less frequent notice are approved by EPA.

<sup>5</sup> If posting is used, the notice must be posted continuously for the duration of the violation or failure. If hand delivery is used, the notice must be repeated every 3 months for as long as the violation or failure exists.

<sup>6</sup> Mandatory health effects language for contaminants is specified in the public drinking water regulations.

<sup>7</sup> Acute violations are those which involve an acute risk to human health. Acute regulations are defined by the public notification regulations and currently include (1) any violations specified by the state as posing an acute risk to human health, (2) violations of the MCL for nitrate, (3) violations of the MCL for total coliforms when fecal coliforms or *E. coli* are present in the water distribution system (effective December 31, 1990), and (4) occurrence of a water-borne disease outbreak in an unfiltered system (effective December 31, 1990). Additional acute violations will be defined as new regulations are promulgated.

## TYPES OF PUBLIC NOTICE

Mail

Hand Delivery

Posting

Newspaper

TV-Radio

## CHECKLIST OF NOTICE CONTENTS

### / The notice provides a clear and readily understandable explanation of the - -

- [1] violation/action
- [2] potential adverse health effects (mandatory health effects language found in Section 141.32(e), the federal public notice requirements.
- [3] population at risk
- [4] steps the system is taking to correct the violation
- [5] necessity of seeking alternative water supplies (if any)
- [6] preventive measures the consumer should take until the violation is corrected

### / The notice

- [7] is clear and conspicuous in design
- [8] contains non-technical language
- [9] uses print that is easily read
- [10] content creates no problems that would frustrate the purpose of public notification
- [11] contains the telephone number of the owner, operator, or designee of the public water system as a source of additional information
- [12] contains multi-lingual information, where appropriate

**VOTE:** The numbers on the example correspond to items found in the checklist above. NA means not applicable in this situation.

**SAMPLE:** Posted Notice with Recommended Health Effects Language

June 1, 1989	Amber Way Turnpike	<u>Authority</u>
TURNPIKE WATER SYSTEM ENCOUNTERS DELAY IN LOWERING NITRATE LEVELS		
WATER FROM THIS LOCATION SHOULD NOT BE GIVEN TO CHILDREN UNDER ONE YEAR OF AGE.		
SITUATION	The Amber Way Turnpike Authority has announced a delay in installation of water treatment equipment for this rest stop. As a result:	
	6723	Water available at this rest stop may be
		slightly higher in nitrates than recommended and should not be given to children under one year of age, or used in making baby formula.
GENERAL	Water measured at this rest stop contained 12 milligrams of nitrate per liter of water. That is slightly higher than the nitrate limit of 10 milligrams per liter.	
INFORMATION	established by the State Health Department. The Turnpike Authority has ordered special water treatment equipment that is designed to lower nitrate levels, and was scheduled to have the equipment installed by June, 1889. The Turnpike Authority was granted an exemption by the State Health Department to meet that deadline. However, because of installation delays, the equipment will not be installed until August. An application has been made to the State Health Department to approve that schedule.	
HEALTH	The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that nitrate poses an acute health concern at	
INFORMATION	certain levels of exposure. This inorganic chemical is used in fertilizer, and is associated with sewage and wastes from farm animals. It generally gets into water from sewage or a result of agricultural fertilizing activity.	
Excessive levels of nitrate in drinking water have caused serious illness (and sometimes death) in young children under one year of age. Infants are at the greatest risk. The serious illness in children is caused because nitrate is converted to nitrite in the body and nitrite interferes with the oxygen carrying capacity of the child's blood. This is an acute disease because the child can exhibit symptoms within hours of consuming water. Symptoms include shortness of breath and blueness of the skin. Clearly, expert, medical advice should be sought immediately if these symptoms occur. However, they do not always occur. The purpose of this notice is to encourage parents and other responsible parties to provide children with an alternate source of drinking water. Local and State health authorities are the best source for information concerning alternate sources of drinking water for infants. You will receive notice as soon as a determination has been made that the drinking water is safe.		
EPA has set the drinking water stand at 10 part per million (ppm) for nitrate to protect against the risk of these adverse effects. Drinking water which meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to nitrate.		
<b>Safe Water Available</b>		
	Low-nitrate safe water is available from the restaurant in the southeast corner of the rest-stop area.	
INFORMATION	The Turnpike Authority regrets the inconvenience. If you have questions regarding nitrates or the schedule for completing this work, please contact:	
Bob Paterson, Amber Way Turnpike Authority (417) 555-8686		

\* [2] recommended health effects language. Substitute mandatory language when published.

## BACTERIOLOGICAL PUBLIC NOTICE EXAMPLE

Content of public notice for failure to submit bacteriological samples must include the following information:

Identify the violation - Failure to submit bacteriological samples monthly as required by law.

Steps the system is taking to correct violation - List samples taken since that time and the results; or give your intent to comply with monitoring regulations in the future.

Include telephone number of the person to contact as source of additional information - This can be the number of the owner, operator or the Public Water Supply Section.

*A copy of the posted notice must be mailed to our office.*

The department may also require public notice to be published in the newspaper and announced on radio and television if there is an imminent threat to public health.

### EXAMPLE OF A PUBLIC NOTICE

(Name Of Your Water System)  
(Your City Here), Montana

#### NOTICE OF A VIOLATION FOR FAILURE TO SUBMIT BACTERIOLOGICAL SAMPLES

The (name of your system) is required by state and federal regulations to test one sample per month for coliform bacteria. Because of an oversight on the part of the operator for the system a sample was not submitted for the month of (month sample was missed). Since that time monthly samples have been submitted and the results have been satisfactory. It is our intent to comply with all regulations, and we will take measures to see that our bacteriological samples are submitted each month.

If you have any questions or comments regarding this, matter, please contact John Doe, operator for the (name of your system) at (system telephone number).



## C. WATER SYSTEM IMPROVEMENTS AND PLAN REVIEW FEES

Any installation, modification, alteration or extension to a transient public water supply or wastewater system must be reviewed and approved by the Public Water Supply Section prior to construction. A fee will be assessed for this review in accordance with the following fee schedule. For more information regarding this requirement of Montana law, please contact the Public Water Supply Section at (406) 444-4400 or write the Department of Environmental Quality, Community Services Bureau, Public Water Supply Section, P.O. Box 200901, Helena, Montana 59620-0901.

PLAN REVIEW FEES	
<b>SCHEDULE I ~ DEQ I</b>	
Section 3.1 Surface water quality and quantity \$ 100 structures \$ 50	
Section 3.2 Groundwater \$ 275	
Section 4.1 Clarification standard clarification \$ 250 solid contact units \$ 500	
Section 4.2 Filtration rapid rate \$ 625 pressure filtration \$ 475 diatomaceous earth \$ 475 slow sand \$ 475	
Section 4.3 Disinfection \$ 100	
Section 4.4 Cation exchange softening \$ 150	
Section 4.5 Aeration natural draft \$ 100 forced draft \$ 100	
Section 4.6 Iron and manganese control-sequestering \$ 100	
Section 4.8 Stabilization CO2 addition \$ 150	
Section 4.9 Taste and odor control powdered activated carbon \$ 100	
Section 4.11 Waste disposal alum sludge \$ 125 lime softening sludge \$ 125 red water waste \$ 125	
Chapter 5 Chemical application \$ 250	
Chapter 6 Pumping facilities \$ 200	
Section 7.1 Plant storage \$ 175	
Section 7.2 Hydropneumatic tanks \$ 50	
Section 7.3 Distribution storage \$ 175	
Chapter 8 Distribution system	
< 1320 lineal feet with standard spec \$ 50	
< 1320 lineal feet without standard specs \$ 225	
> 1320 lineal feet with standard specs \$ 100	
> 1320 lineal feet without standard specs \$ 275	
Main extension certified checklist \$ 25	
<b>SCHEDULE II ~ DEQ II</b>	
Chapter 10 Engineering reports and facility plans engineering reports (minor) \$ 75 comprehensive facility plan (major) \$ 500	
Chapter 30 Design of sewers	
< 1320 lineal feet with standard spec \$ 50	
< 1320 lineal feet without standard specs \$ 225	
> 1320 lineal feet with standard specs \$ 100	
<b>SCHEDULE III ~ WQB IV &amp; V</b>	
Chapter 20 Sewers \$ 50	
Chapter 50 Septic tank \$ 50	
Chapter 30, 40 & 60 Subsurface treatment	
gravity \$ 150	
dosed \$ 250	
Alternative on-site sewage treatment design requiring review for compliance with department circular (per design) \$ 350	
<b>SCHEDULE IV ~ DEQ III</b>	
Section 3.2 Groundwater \$ 250	
Chapter 6 Pump facilities \$ 100	
Chapter 8 Distribution system \$ 100	
<b>SCHEDULE V (no design standards)</b>	
Hypochlorinators \$ 50	
Ozonators up to 10 gpm \$ 150	
CT evaluations \$ 100	
Reverse osmosis up to 10 gpm \$ 100	
Spring box and collection lateral \$ 100	
Cartridge/bag filters \$ 150	
Plans and specifications not covered under Section (2)	
Hourly Fee = <b>\$26</b> (Maximum Fee = \$500)	
Total Hour(s) _____ Total Fee \$ _____	

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#### **D. SERVICE CONNECTION FEES**

A public water supply system must pay to the department an annual fee for each state fiscal year. Each transient non-community public water supply system supplier must determine the total number of active service connections for each fiscal year based on an assessment that occurs between July 1 and August 1 of that fiscal year. The annual fee must be postmarked or delivered to the department no later than March 1 of each year.

For purposes of this rule, an active service connection is one that provides water service for human consumption to a customer that is billed directly or otherwise held directly responsible by a public water supply system supplier for payment for that service. Activities that do not qualify as human consumption include water used exclusively by livestock or for fire protection.

The annual fee for a transient non-community public water supply system is \$50.

Failure to pay the annual fee by March 1 of the fiscal year for which the fee is assessed subjects the system supplier to an additional charge to be calculated by multiplying the fee by 1.50% for each calendar month in which the fee is not paid.

#### **E. ADMINISTRATIVE PENALTIES**

Administrative penalties may be assessed for any violations of the Public Water Supply Act or failure to pay the Service Connection Fees.

## **IV. SUMMARY OF PUBLIC WATER SUPPLY MONITORING REQUIREMENTS**

### **A. TRANSIENT NON-COMMUNITY WATER SYSTEM**

These are the drinking water monitoring requirements for public water supplies as they apply to transient non-community systems. I hope you find this flow chart useful. Please be aware that these requirements may be subject to change if the Safe Drinking Water Act is amended at any time. Bacteriological samples are taken in the distribution system. All other chemical samples are taken at each entry point after treatment. All laboratories must forward bacteriological results to the Department of Environmental Quality (DEQ). The Helena Public Health & Chemistry Lab will also forward nitrate and nitrite results. Those systems that use private labs must forward chemical results to the DEQ. Please call the Public Water Supply Section at 444-4400 if you have any questions.

CONTAMINANT	1999 THROUGH 2001 – FIRST COMPLIANCE CYCLE (THIRD COMPLIANCE PERIOD)			2002 THROUGH 2004 – SECOND COMPLIANCE CYCLE (FIRST COMPLIANCE PERIOD)			COMMENTS/SUGGESTIONS
	1999	2000	2001	2002	2003	2004	
MICROBIOLOGICAL	MONTHLY/ *QUARTERLY	MONTHLY/ *QUARTERLY	MONTHLY/ *QUARTERLY	MONTHLY/ *QUARTERLY	MONTHLY/ *QUARTERLY	MONTHLY/ *QUARTERLY	SET UP ROUTINE/AUTOMATIC BOTTLE MAILING WITH YOUR LAB. SAMPLE EARLY IN THE MONTH SO YOU HAVE TIME FOR REPEAT SAMPLING IF NECESSARY.
NITRATE	ANNUALLY	ANNUALLY	ANNUALLY	ANNUALLY	ANNUALLY	ANNUALLY	CONTACT YOUR LAB AND ASK FOR NITRATE SAMPLE KIT ONCE PER YEAR. ONE ANNUAL SAMPLE IS ADEQUATE UNLESS RESULT IS GREATER THAN 5.0 MG/L. IF THIS OCCURS YOU WILL NEED TO DO A REPEAT WITHIN 14 DAYS AND CONTACT WQD FOR MORE HELP .
LEAD & COPPER TAP SAMPLES	NOT REQUIRED						LEAD & COPPER TAP SAMPLES NOT REQUIRED FOR TRANSIENT NON-COMMUNITY SYSTEMS.
PHASE II & V SOCs, PESTICIDES & HERBICIDES	NOT REQUIRED						PHASE II & V SOCs, PESTICIDES & HERBICIDES NOT REQUIRED FOR TRANSIENT NON-COMMUNITY SYSTEMS .
PHASE II & V VOCs	NOT REQUIRED						PHASE II & V VOCs NOT REQUIRED FOR TRANSIENT NON-COMMUNITY SYSTEMS.
NITRITE	ONCE PER COMPLIANCE PERIOD			ONCE PER COMPLIANCE PERIOD			NITRITE IS ONLY REQUIRED TO BE PERFORMED ONCE PER THREE YEAR CYCLE <u>IF THERE ARE NO EXCEEDANCES</u> . IF TRIGGER LEVEL IS EXCEEDED YOU MUST DO 4 CONSECUTIVE QUARTERS .
RADIONUCLIDES	NOT REQUIRED						RADIONUCLIDES ARE NOT REQUIRED FOR NON-COMMUNITY SYSTEMS

The Safe Drinking Water Act (SDWA) of 1986 established the Lead & Copper Rule and all of the Phase I, II & V requirements for sampling public water supplies. This SDWA established 3-year monitoring cycles which began in 1993. The first period was 1993 through the end of 1995, the second from 1996 through the end of 1998, etc... The State DEQ Public Water Supply Section is responsible for oversight of all of these monitoring requirements for approximately 2000 public water systems in Montana. The fees associated with owning a public water system were established to partially fund the Public Water Supply Program. The water and wastewater training programs and other training programs are funded largely by system fees.

**EITHER A MONTHLY OR QUARTERLY BASIS, DEPENDING ON YOUR SYSTEM'S CURRENT STATUS. YOU MUST RECEIVE WRITTEN APPROVAL FROM THE PUBLIC WATER SUPPLY SECTION TO MONITOR QUARTERLY.**

V. CERTIFIED MONTANA LABORATORIES	CERTIFIED FOR					
LABORATORIES	MICROBIOLOGICAL	NITRATES	INORGANIC	SOCs <sup>1</sup>	RAD	VOCs <sup>2</sup>
Department of Public Health & Human Services Environmental Lab Cogswell Building, Room B219 1400 Broadway - P.O. Box 4369 Helena MT 59620-4369 Phone: 444-2642	♦	♦	♦	♦		♦
Montana Environmental Lab 376 West Washington - P.O. Box 8900 Kalispell MT 59901 Phone: 755-2131	♦	♦				
Montana Environmental Lab 920 Technology Blvd Bozeman MT 59715 Phone: 582-1886	♦					
Montana Microbiological Services P.O. Box 4570 Bozeman MT 59772 Phone: 586-5590	♦					
Missoula City-County Health Dept. 301 West Alder Missoula MT 59801 Phone: 523-4755	♦					
AMATEC P.O. Box 20873 Billings MT 59104 Phone: 248-2159	♦					
Hagen Water Laboratory P.O. Box 1205 • 505 W. Main St., Suite 320 Lewistown MT 59457 Phone: 538-6988 or 538-7559	♦					
Energy Laboratories, Inc. 1077 South Broadway - P.O. Box 30916 Billings MT 59107-0916 Phone: 252-6325 or 1-800-735-4489	♦	♦	♦	♦	♦	♦
Western Water Lab 1650 South Avenue West P.O. Box 1090 Missoula MT 59806 Phone: 542-1800 Fax: 542-8989	♦	♦	■			
MSE, Inc. 106 South Parkmont Industrial Park - Analytical Laboratory Butte MT 59701 Phone: 494-1403	♦	♦	♦			
Crane Laboratory P.O. Box 105 Crane, MT 59217 Phone: 482-8714	♦					
Maxim 600 South 25th Street - P.O. Box 30615 Billings MT 59107 Phone: 248-9161		♦	■	♦		♦
Montana Bureau of Mines Montana College of Mineral Science & Technology Analytical Division Butte MT 59701 Phone: 496-4164		♦	♦			
City of Billings Public Utilities Department Laboratory Highway 87 East - P.O. Box 30958 Billings MT 59111 Phone: 657-8353		♦	■			
Peak Analytical Services, Inc. 2010 North Seventh Avenue Bozeman MT 59715 Phone: 585-8160		♦	♦			
Little Bear Laboratories, Inc. P.O. Box 1434 • 22 S. Broadway, Suite B Red Lodge MT 59068 Phone: 446-3648		♦	■			
<div>♦ Fully certified</div> <div>■ Not certified for ALL required tests in this category</div> <div>(pesticides, etc.)</div> <div><sup>2</sup>. VOCs are volatile organic chemicals (solvents, etc.)</div> <div><sup>1</sup>. SOCs are synthetic organic chemicals</div>						

V. CERTIFIED MONTANA LABORATORIES		CERTIFIED FOR				
LABORATORIES	MICROBIOLOGICAL	NITRATES	INORGANIC	SOCs <sup>1</sup>	RAD	VOCs <sup>2</sup>
(This list is subject to change without notification and will be updated as laboratories obtain certification) (This list is subject to change without notification and will be updated as laboratories obtain certification)						
November 9, 1999, CERTLAB.MT						